opportunities for children to develop new, information age skills needed for modern careers. Pacific estimated the value of its Education First program to be $100 million. Thus far about $15 million dollars of that total have been consumed.

19. Should an additional discount be given to schools and libraries located in rural, insular, high cost and economically disadvantaged areas? What percent of telecommunications services (e.g., Internet services) used by schools and libraries are or require toll calls?

We would support the concept of providing additional purchasing credits to schools which would otherwise have a significantly higher net cost (actual price less credits) to procure a minimum critical mass of telecommunication services. In terms of our proposed "a+bx" fund allocation algorithm, we suggest that the "a" portion for such schools be set at a somewhat higher level for institutions located in areas in which the cost of network access is substantially higher. For economically disadvantaged schools, the "b" portion might be set slightly higher. We have no empirical data regarding the percentage of institutions which might require a toll call to reach the Internet. Such information would be better assessed from either the institutions themselves, or possibly Internet providers. Even so, we unofficially estimate that less than 10% of the schools in California will require a toll call to reach the nearest Internet provider. While we do not have an estimate for health care providers, we suspect the percentage is quite low since most of California's health care providers are concentrated in urban areas. Traditionally health care providers' calling patterns have been heavily weighted towards intraLATA calling, suggesting the providers generally

are not located in remote areas. We also note, however, that Internet access services (as opposed to the underlying transport an Internet customer uses to dial up to his access provider) are not now subject to active regulatory oversight and the revenues associated with such services are not clearly subject to levy or surcharge for purposes of the Universal Service/Federal Education Fund Accordingly, we do not believe Internet access per se should be on the list of credit-eligible services, unless the Commission determines a means to include Internet access providers among those services over which it has jurisdiction and which are thus subject to levy or surcharge.

20. Should the Commission use some existing model to determine the degree to which a school is disadvantaged? Which one? What, if any, modifications should the Commission make to that model.

We defer to the education community the task of defining what constitutes being "disadvantaged." The specific determinant could also be drawn from existing federal or state programs, where they exist.

21. Should the Commission use a sliding scale approach (i.e., along a continuum of need) or a step approach (e.g., the Lifeline assistance program or the national school lunch program) to allocate any additional consideration given to schools and libraries located in rural, insular, high-cost, and economically disadvantaged areas?

Step approaches are much easier to apply and administer than sliding scale approaches. A step approach has fewer "break points," thus allowing customers to be grouped into bands. Sliding scales with a smooth continuum have infinite "break

points," leading to the need for customized "per school" and "per library" handling, which usually is a more labor-intensive operation Therefore, we recommend the "step" approach.

22. Should separate funding mechanisms be established for schools and libraries and for rural health care providers?

We are indifferent to whether or not the Federal Education Fund is funded separately. We do believe, however, that the collected funds should be divided into discrete "buckets" to facilitate separate allocation tracking and accounting.

23. Are the cost estimates contained in the McKinsey Report and NII KickStart Initiative an accurate funding estimate for the discount provisions for schools and libraries, assuming that tariffed rates are used as the base prices?

Not having thoroughly reviewed either McKinsey estimate themselves, nor assumptions on which they are based, Pacific has no opinion as to its degree of accuracy. We accept the KickStart Initiative as a well-reasoned approximation of the costs associated with providing technology in schools, but defer to the KickStart authors any questions as to their report's degree of accuracy As we stated in our comments, we do agree with the general premise of the KickStart Initiative that telecommunications services represent but a small percentage of the total technology needs of schools. Other costs for hardware, software, content, professional development and systems support must be incurred in order for schools to make meaningful use of technology. However, we strongly believe that any services that can be purchased with "credits"

should require the providers of those services to contribute to the Universal Service/Federal Education Fund on a basis similar to that invoked for telecommunication's service providers.

24. Are there other cost estimates available that can serve as the basis for establishing a funding estimate for the discount provisions applicable to schools and libraries and to rural health care providers?

We have no direct knowledge of other cost estimates.

25. Are there any specific cost estimates that address the discount funding estimates for eligible private schools?

Pacific has no knowledge of any such estimates.

High Cost Fund

General Questions

26. If the existing high-cost support mechanism remains in place (on either a permanent or temporary basis), what modifications, if any, are required to comply with the Telecommunications Act of 1996?

The Telecommunications Act's requirements are inconsistent with the existing high cost fund. Section 214(e) of the Telecommunications Act states that all eligible telecommunications carriers as designated by the state commissions shall be eligible to receive universal service support. Also, support mechanisms must be specific, predictable, and competitively neutral (Section 254(b)). If the existing high-cost fund

were to be permanently retained as the only source of universal service support, the eligibility would need to be expanded to all eligible carriers and all telecommunications carriers would need to be made responsible for participating in the fund (as opposed to today's fund which is supported by interexchange carriers). Section 254 also states that support should be sufficient. The current high-cost fund in its current configuration could not be deemed sufficient since it largely ignores high cost areas which are served by providers also serving low cost areas that are within the same study area. Overall the current high-cost fund cannot be considered to be meeting the intent of the Telecommunications Act and must, at a minimum, be supplemented with a program that makes all existing subsidies explicit, funded on a competitively neutral basis, and available to all eligible providers.

27. If the high-cost support system is kept in place for rural areas, how should it be modified to target the fund better and consistently with the Telecommunications Act of 1996?

We believe that the current high-cost support system is meeting the needs of companies serving study areas which are uniformly high cost. It should be modified, however, to fund high cost areas regardless of the other areas served by the incumbent provider. Again, since the Telecommunications Act requires the high-cost support system to be competitively neutral as well as available to all eligible telecommunications carriers, a better solution is to use a proxy model to determine the cost to provide service on a geography by geography basis

28. What are the potential advantages and disadvantages of basing the payments to competitive carriers on the book costs of the incumbent local exchange carrier operating in the same service area?

Carriers are entitled to recover their full book costs for the provision of services. However, basing universal service subsidy on the book costs of the incumbent will overcompensate competing carriers for the provision of service. Book costs of the incumbent LEC contain, among other things, depreciation reserve amounts which are a legacy from regulated depreciation rates. Basing subsidy payments to other carriers on this legacy would allow them to gain an advantage to recover costs they haven't incurred.

29. Should price cap companies be eligible for high-cost support, and if not, how would the exclusion of price cap carriers be consistent with the provisions of section 214(e) of the Communications Act? In the alternative, should high-cost support be structured differently for price cap carriers than for other carriers?

It would not be consistent with the provisions of section 214(e) to exclude price cap carriers from universal service support. Section 214(e) refers to all eligible telecommunications providers. Further, section 254 of the Act requires competitively neutral funding which, if price cap companies were excluded from universal service support, would still require them to contribute to the fund. Thus price cap carriers would suffer the burdens of universal service by serving high cost areas, would need to contribute to the fund, yet would be unable to receive any support from the fund. This is not competitively neutral.

Also, subsidies must be made explicit under section 254. Therefore all subsidies, even those implicit in our rates, should be identified and made explicit, whether from price cap or non price cap companies.

Further, the price cap mechanism is merely a rate regulating mechanism. Participation or non-participation in price caps is not related to whether a company is able to recover the cost of basic services through basic service rates, or from other services that company provides. Criteria for participation in universal service should be applied equally for all eligible telecommunications companies. If a different system were set up for price cap carriers and non-price cap carriers, those companies could not compete equally with one another in one anothers' territories, contrary to the intent of the Telecommunications Act. Such a different structure may also be unreasonably discriminatory, contrary to Section 202 of the Communications Act.

30. If price cap companies are not eligible for support or receive high-cost support on a different basis than other carriers, what should be the definition of a "price cap" company? Would companies participating in a state, but not a federal, price cap plan be deemed price cap companies? Should there be a distinction between carriers operating under price caps and carriers that have agreed, for a specified period of time, to limit increases in some or all rates as part of a "social contract" regulatory approach?

We have chosen not to answer this question since we believe it is improper to single out price cap carriers for non-participation in the universal service fund. See answer to Question 29 above. For competitive neutrality, as well as for fairness, whatever system is put in place should not be dependent on the regulatory scheme under which the carrier operates.

31. If a bifurcated plan that would allow the use of book costs (instead of proxy costs) were used for rural companies, how should rural companies be defined?

A bifurcation may be the most practical way to proceed to get the new fund operational. If such a plan were implemented, the definition of "rural" companies should only include those that are truly rural in character Traditionally, a rural company is defined as one with under 50,000 lines (at the operating level) that is not operating in an urbanized area, as defined by the Bureau of the Census.

32. If such a bifurcated approach is used, should those carriers initially allowed to use book costs eventually transition to a proxy system or a system of competitive bidding? If these companies are transitioned from book costs, how long should the transition be? What would be the basis for high-cost assistance to competitors under a bifurcated approach, both initially and during a transition period?

Yes, a transition period may be appropriate to ensure that proxy methodology is adequately covering discrete costs and issues of a rural company over some period.

The CPM can take into account the differences in buying power and economics of scale and scope between large and small LECs. The CPM can use a ratio derived from ARMIS data on expenses per access line. This ratio is based upon the relative operating expenses of the company compared to an average, either statewide or nationwide. In that way, efficiencies of large LECs are not assumed for smaller companies.

33. If a proxy model is used, should carriers serving areas with subscription below a certain level continue to receive assistance at levels currently produced under the HCF and DEM weighting subsidies?

A properly targeted universal service subsidy system will resolve the issues where a carrier is not serving an area well. As long as the subsidy is targeted, sufficient, and portable, other carriers will compete in that geographic area and use better service as a competitive advantage. If particular subscribership issues are present in a particular area, targeted programs for that subscribership issue should be imposed. This does not necessarily have to be in conjunction with universal service support. In fact, low subscribership levels should be addressed by Lifeline and link-up programs. If companies are penalized for low subscribership, they will tend to avoid serving in areas where subscribership is an issue

Proxy Models

34. What, if any, programs (in addition to those aimed at high-cost areas) are needed to ensure that insular areas have affordable telecommunications service?

If funding for universal service is adequate, carriers will be attracted to serve, insular areas as well as any other high cost areas. Current proxy models do not have specific cost components for insular areas, however Pacific's CPM, using actual central office serving configurations, should account for the natural geologic boundaries that have forced a given configuration whether those boundaries are mountains, rivers or seas.

35. US West has stated that an industry task force "could develop a final model process utilizing consensus model assumptions and input data." US West comments at 10. Comment on US West's statement, discussing potential legal issues and practical considerations in light of the requirement under the 1996 Act that the Commission take final action in this proceeding within six months of the Joint Board's recommended decision

With a directive from the Commission, we believe that an industry task force could be given a discrete time period in which to come up with the best proxy model available. The six-month period of time between the Joint Board decision and the Commission's action under the Telecommunications Act should be able to accommodate this step in the process. The LEC industry has begun this process informally. However, if that does not work, a directive of this sort by the Commission may be quite helpful. We supported this approach in our reply comments and believe that the Commission could issue principles within which a proxy model must operate, while directing the parties to try to reach agreement on models based on those principles. In our reply comments, we proposed the following attributes of a proxy model: 1) it must accurately include all network elements; 2) it must be based on the most modern technology currently being deployed, not on technologies not yet deployed for universal services; 3) it must recognize efficiencies and differences between large and small carriers so that appropriate costs are included; 4) it must model a realistic distribution of population; 5) it must include a reasonable amount of shared and common costs; and 6) it must be verifiable.

36. What proposals, if any, have been considered by interested parties to harmonize the differences among the various proxy cost proposals? What results have been achieved?

Pacific Bell, as the sponsor of the Cost Proxy Model, and the authors of the original Benchmark Cost Model (Sprint and USWest), plus GTE began meeting over the last three months in an attempt to reconcile their models. The BCM-2 includes changes suggested by many parties and includes some aspects of the CPM. While the results are not conclusive, we are very much encouraged by the issuance of BCM-2. The CPM and the BCM-2 are now producing similar results (at least for California). We have recently invited other LECs to join these authors in producing an amalgamated model.

37. How does a proxy model determine costs for providing only the defined universal service core services?

A Proxy Model should estimate the cost of the services that meet the definition of core universal services that the Act requires to be made available at an affordable rate. From this foundation, additional elements that others consider as a necessary part of universal service can be costed and added to the core as discussed in our response to question 5. As long as a model distinguishes and separately states the cost of each element of universal service, it can be used to price any combination of the services.

The Cost Proxy Model develops costs of the loop, which is the essential element of any basic service package. It is also the part of the service that varies most significantly area by area. Fixed costs of access to a switch and the basic network

must also be calculated by the model. Finally, the model should add a reasonable portion of the firm's joint and common costs

38. How should a proxy model evolve to account for changes in the definition of core services or in the technical capabilities of various types of facilities?

The most fundamental purpose of a Proxy Model is to estimate the market price of the core service. Then, in areas where that market price exceeds universal affordability, the market price is subsidized by a universal service fund. If the fund is adequately sized, there will be competition for all services. Changes in the funding mechanism should occur with an eye to that competitive environment. The Commission should determine how action of the market, not action of the regulators should govern prices, services offered, and quality options.

If the fund provides compensation for core services based upon how many customers select a given provider's services, providers will find what makes customers choose them. If it is a low price, providers will become lowest cost. If it is additional or advanced services, providers will be innovative in bringing those services to the market. The next step in developing model evolution should be careful observation. If providers flock to meet the needs of a given geographic, demographic or economic classification and ignore others, the model should be revised Accordingly, the Commission should focus on when and how to review and get relevant information to make these assessments.

Periodic reviews of the definition of core services appear workable within the context of regulatory proceedings. A proceeding on auctioning support should be opened immediately after the fund is implemented.

As alternative technologies are found to be useful in the provision of universal service, those technologies should also be included into proxy modeling, as the best available technology for each given geography. The CPM is flexible enough to accommodate changes over time, since the inputs are fully adjustable.

39. Should a proxy model account for the cost of access to advanced telecommunications and information services, as referenced in section 254(b) of the Act? If so, how should this occur?

Once access to advanced services is part of the definition of universal service, then the proxy model can be revised to include the cost of this access into the proxy costs available in the computation of universal service support dollars. Until that time, by providing full support for telecommunications services that are part of the definition of core services, the Commission will create the incentive necessary for providers to experiment with what other services are desired by customers.

40. If a proxy model is used, what, if any, measures are necessary to assure that urban rates and rates in rural, insular, and high-cost areas are reasonably comparable, as required in Section 254(b)(3) of the 1996 Act.

A proxy model is used to disaggregate costs in a small geographic area in order to geographically deaverage any subsidy. Therefore, with a proxy model the rates an

end user pays do not need to be different, but the support an eligible telecommunications carrier receives will differ from geography to geography as costs differ. Thus, under section 254(b)(3) of the Act, rates may be established at levels that are reasonably comparable even though subsidy amounts may differ markedly. Currently rates vary widely and yet can still be considered "reasonably comparable" since they are based on a state commission's assessment of the costs incurred and the ability of end users to bear those costs. As we stated in our comments, even within California rates vary widely, with Pacific charging $11 25, and GTE charging $16.85

41. How should support be calculated for those areas (e.g., insular areas and Alaska) that are not included under the proxy model?

The CPM can include areas such as Alaska, Hawaii and possibly Puerto Rico. The CPM can calculate costs in these areas; the limiting factor is in what granularity data is available to disaggregage the populations. It may be that for insular areas, Census Block Group may be the most discrete unit available (grid level data does not seem to be available for these areas).

42. Will support calculated using a proxy model provide sufficient incentive to support infrastructure development and maintain quality service?

Yes, as long as the support that is calculated from a proxy model is sufficient. Whether support is calculated from a model or from some other technique, if it is too low, it will discourage investment in particular areas. An undersized fund will not

support infrastructure development. Every business invests only where it can expect to realize a profit. If the fund is undersized, then no profits would be expected and infrastructure investment would be jeopardized To maintain quality of service among all participants, it is important that minimum quality of service obligations should be established as a condition of obtaining universal service support.

Conversely if the fund were oversized, one would expect an overbuilding of investment. This is arguably occurring today in dense urban areas for business services, where profits are high due to the current price structure that provides the universal service subsidy through averaging of prices.

43. Should there be recourse for companies whose book costs are substantially above the costs projected for them under a proxy model? If so, under what conditions (for example, at what cost levels above the proxy amount) should carriers be granted a waiver allowing alternative treatment? What standards should be used when considering such requests?

Yes, there should be recourse. ARMIS reports for companies in California reveal tremendous variation in individual company's cost structures. These variations seem related to the line size of the companies, and could reflect fixed cost recovery and equipment purchasing power. Our proposed proxy model recognizes these differences and can incorporate some of these differences into its results.

There should be a recourse built into the universal service system so that if the proxy model does not accurately project costs for that area, carriers serving that area have some ability to obtain an increased subsidy The Commission should construct a methodology for doing that One method is for carriers to have the right to make a cost

showing that would justify its costs. The individual company would be allowed to argue and justify a cost level it believes accurately reflects its cost structure. Another method is, in further proceedings, to set up a bidding mechanism so that carriers that believe their subsidy amount is insufficient invoke an auction alternative to determine the correct market level of subsidy for a given area

44. How can a proxy model be modified to accommodate technological neutrality?

A proxy model should only accommodate the technology widely in use that results in the most efficient service to that area. A proxy model should not be blind to the technology used to serve an area, but it should not be so forward looking that it calculates subsidy based on some imagined network, as opposed to a network currently in use today. However, as the mix of technology used to provide service evolves over time the model should be periodically updated to reflect that technology. As long as the model incorporates costs of technology actually available and in use, it should not be seen as either encouraging or discouraging any particular technology, but will encourage the most efficient and cost effective network.

In the periodic reviews of the universal service core services, new or innovative technologies actually in use can be examined. The proxy model could then be adjusted, if appropriate, to account for any cost differentials as a result of the new technology. The CPM can accommodate these sorts of changes.

Following implementation of the new universal service fund, the marketplace will provide the most significant information regarding technology change. If wireless

becomes used for universal service, changes should be made to accommodate that technology.

45. Is it appropriate for a proxy model adopted by the Commission in this proceeding to be subject to proprietary restrictions, or must such a model be a public document?

In order for a proxy model to accurately reflect the costs of providing service, it must have the best and most accurate information input into it. That may include vendor pricing and installation costs, which are proprietary. Requiring such information to be public may compromise a company's ability to negotiate the best prices with its vendors. However, that concern can be mitigated by appropriate use of nondisclosure agreements so that accurate information is input into the model, yet other parties or regulators have the opportunity to review that information to ensure accuracy. If such information were not used, the proper subsidy fund amount could be miscalculated.

As we have stated in recent ex parte filings all of the information in the Cost Proxy Model can be, and has been, made available to the Commission and to other parties. We have made efforts to protect the intellectual property of the software code which comprises the CPM. However, the software diskette is available at no charge as long as a recipient signs a software licensing agreement agreeing not to use the software for purposes other than examining the model in connection with this Docket, Docket No. 96-98 and related state proceedings.

The back up material underlying Pacific's inputs (such as fill factor, and engineering assumptions) is also available. If anyone wants the individual cost data

upon which those factors are based, it is available upon execution of a nondisclosure agreement so that the sensitive cost data can't be used for an improper purpose (e.g. marketing) by the recipient. Many parties to the state and federal proceeding have examined the inputs using this process.

By using inputs to the model derived from actual costs incurred for switches, or actual fill factors from wire centers, parties can be assured that the costs predicted by the CPM will be appropriate and sufficient.

Therefore if the Commission's intentions are to institute a universal service system which yields a subsidy sufficient to appropriately fund service providers in high cost areas, it should not shy away from a model because certain restrictions are put on underlying information. As long as reasonable review can take place, the Commission can adopt a model which has some proprietary restrictions.

46. Should a proxy model be adopted if it is based on proprietary data that may not be available for public review?

As we stated in above in our response to question 45, a proxy model can be adopted if it contains proprietary data as long as underlying data can be made available for review. The proprietary data supporting calculations of a model should be available, subject to appropriate restrictions on use, to any party to this proceeding. The output of the model should be entirely public. The Commission's most important goal in this proceeding should be to set up the correct subsidy dollars so that competition can develop. If the best system is one which requires use of proprietary data, it should be

ordered, as long as the competing interest of public review can be satisfied by reasonable restrictions on review or by audit by responsible fund administrator.

47. If it is determined that proprietary data should not be employed in the proxy model, are there adequate data publicly available on current book costs to develop a proxy model? If so, identify the source(s) of such data.

We are not aware of any publicly available cost studies to provide all the cost inputs for a proxy model. The use of publicly available cost studies may not be appropriate due to specific unique serving conditions For example two cost studies mentioned in the California proceeding and elsewhere are the New England Telephone Study and the Centel-Nevada Cost Study. In the New England study the costs include a 10% service volume increase, making it an incremental cost study therefore violating TSLRIC costing principles.

The Centel-Nevada study covers the Las Vegas/Henderson region. This area is 95% urban with an extremely flat even geography This study is not relevant to the costs of providing universal service in other regions which may be less urbanized, more rural with uneven population distribution and with more varied, possibly even mountainous, terrain.

Publicly available ARMIS reports are accounting data. They do not include product costs. For ARMIS data to be used in a proxy model a breakout would be required because cable and wire facilities are combined in loop and interoffice facilities.

A similar breakout would have to be performed for switching investments which support local and long distance calling, vertical services and signaling. Additionally a

different expense assignment would need to be developed from the ARMIS report for a tops down approach. However this would still not provide the forward looking cost structure essential to equitably distribute Universal Service Funds.

48. Should the materiality and potential importance of proprietary information be considered in evaluating the various models?

Yes, it should be considered because the proprietary costs could have significant impact on the subsidy fund. Proprietary costs may give rise to the most accurate proxy costs. So proprietary information may be the most relevant cost information that exists. As long as some way exists to protect that information (See answer to 45, above) the Commission should not shy away from a model that uses these accurate inputs.

Competitive Bidding

49. How would high-cost payments be determined under a system of competitive bidding in areas with no competition?

Pacific believes that competitive bidding could be used to adjust the level of subsidy support to any given area once the initial subsidy has been set using the Cost Proxy Model. The Commission should open a further proceeding to answer these and other questions as to how competitive bidding could be structured fairly and appropriately.

50. How should a bidding system be structured in order to provide incentives for carriers to compete to submit the low bid for universal sales support?

See answer to #49.

51. What, if any, safeguards should be adopted to ensure that large companies do not bid excessively low to drive out competition?

See answer to #49.

52. What safeguards should be adopted to ensure adequate quality of service under a system of competitive bidding?

See answer to #49.

53. How is collusion avoided when using a competitive bid?

See answer to #49.

54. Should the structure of the auction differ if there are few bidders? If so, how?

See answer to #49.

55. How should the Commission determine the size of the areas within which eligible carriers bid for universal service support? What is the optimal basis for determining the size of those areas, in order to avoid unfair advantage for either the incumbent local exchange carriers or competitive carriers?

See answer to #49

Benchmark Cost Model (BCM)

56. How do the book costs of incumbent local exchange carriers compare with the calculated proxy costs of the Benchmark Cost Model (BCM) for the same areas?

In 1993 Pacific conducted a tops down, direct embedded cost (DEC) analysis (using book depreciation rates) of its wire centers. The results showed that residential loop operating expenses and capital costs were $2.7 billion. According to our calculations, the BCM-2 estimates our residential loop at $2.6 billion. The CPM (using TSLRIC principles agreed to in the CPUC's Local Competition proceeding) estimated Pacific's residential loop at $2.9 billion (using economic depreciation rates). Therefore despite some conceptual differences, the results are close. Differences between Pacific's DEC analysis and its CPM estimates are primarily due to increasing costs for copper plant and installation and decreasing costs for fiber and electronics.

57. Should the BCM be modified to include non-wireline services? If wireless technology proves less costly than wireline facilities, should projected costs be capped at the level predicted for use of wireless technology?

No. Wireless technology has not yet proven to be a more practical universal service technology than wireline service and therefore should not be included in the BCM (or CPM) at the present time. In today's modeling efforts, the current technology should be used for three reasons:

First, the current technology is what is being used to provide universal service today. Other technologies, while promising, are not in use on a wide scale basis and the costs of those networks are not even estimable with any certainty. In some cases the technology is not ripe for commercial deployment

The second reason that the future technologies cannot be used to set the price of universal service on the networks of today is that the providers of the existing technology are entitled to their costs until actually displaced by the alternative technology. They should not be forced to remain the carrier of last resort at a price that is significantly below their costs. Once the wireless alternatives are deployed, the incumbent LECs can discontinue service

The third reason is that incorrect market signals will be sent by using future technologies, resulting in overall investment that is inefficient. The providers of the alternative network technology will not have incentive to find the areas where their network is particularly efficient. For example, if there are two areas, in area A wireless technology beats wireline by 50% and in area B wireless and wireline technology are a push. If the subsidy for area A is cut in half, the wireless provider will be indifferent as

to which area to serve. Society will be better served, however, by the provider entering area A.

If a more efficient technology is found, then the new technology should be deployed and then the incumbent providers should be allowed to exit the market rather than continue to lose money while being required to provide service. This cannot happen unless the subsidy for a given area is lowered to match a new technology only at the time that the incumbent is given an opportunity to exit that market.

58. What are the advantages and disadvantages of using a wire center instead of a Census Block Group as the appropriate geographic area in projecting costs?

The advantage to using wire center data is that the data (especially actual data) is available on a wire center basis. The disadvantage of wire center data is that a wire center is an average of geographic areas that have enormous differences in costs. Each rural wire center typically includes a relatively dense core surrounded by increasingly rural areas at greater and greater distances from the core. This averaging of low cost and high costs within a wire center will provide incentive for carriers to serve only customers in low cost areas, while high cost areas will be underserved. This invites cream skimming. Generally, the more discrete the geographic unit, the more accurate the subsidy will be. The CPM uses a grid (1/100 of a degree of latitude and 1/100 of a degree of longitude) and targets costs to that small geography. This better targets the subsidy in areas (such as in rural areas) where census block groups cover

very large areas. The CPM takes the grid costs and can roll them up to a Census Block Group (CBG) or other discrete unit.

An example of how using wire center averaging will hurt competition is if a competitive provider chooses to provide the local service within a wire center that has a variety of different costs CBGs. If the competitor chooses only to serve those customers close to its facilities (lower costs) and ignores those customers farther away which are costlier to serve, the provider will receive a subsidy based on the average cost of service to that wire center, even though its costs are below the average because the customers it chooses to serve are lower cost. In this scenario, the competitor gains an unfair competitive advantage over the incumbent LEC which is required to serve customers in the outlying areas as the carrier of last resort.

The LEC only receives the average amount of subsidy based on the wire center average, but its costs to serve those customers in the outlying areas is greater than the wire center average. This puts the incumbent LEC at a competitive disadvantage and denies the benefits of multiple providers to the high cost consumers within the wire center. Thus deaveraging the subsidy to a greater extent is more advantageous.